

WHAT IS CLAIMED IS:

1. A printer apparatus comprising:
a print engine that is operative upon an article to be printed to impart markings upon the article; a sensor for detecting humidity within the printer apparatus; a sensor for detecting temperature within the printer apparatus; and
a controller for determining if the detected humidity within the apparatus falls within a range of acceptable humidities and the detected temperature within the apparatus falls within a range of acceptable temperatures wherein the range of acceptable humidities and acceptable temperatures defines an area of setpoints of acceptable humidities and temperatures.
2. The printer apparatus of claim 1 and wherein a heater heats air moving within the machine.
3. The printer apparatus of claim 2 and wherein a mist producing device adds humidity to the apparatus.
4. The printer apparatus of claim 3 and wherein the print engine prints while a recording member is moved in a process direction and a fan is mounted in the apparatus to provide airflow across the recording member in a direction transverse to the process direction.
5. The printer apparatus of claim 4 and wherein the controller includes a microprocessor that is programmed to provide control of the heater and the mist producing device for control of temperature and humidity within the apparatus.
6. The printer apparatus of claim 5 and wherein the microprocessor, when the present detected temperature and humidity is outside of the area range of acceptable temperatures and humidities, determines a minimum change in a combination of temperature and relative humidity adjustments needed to change the temperature and humidity within the apparatus and in accordance with such determination controls which of the heater and the mist producing device or both is/are to be operated to provide the minimum change needed to change the present temperature and humidity to a temperature and humidity that is inside of the area range of acceptable temperatures and humidities.

7. The printer apparatus of claim 1 and wherein a mist producing device adds humidity to the air in the apparatus.

8. The printer apparatus of claim 1 and wherein the print engine prints while a recording member is moved in a process direction and a fan is mounted in the apparatus to provide airflow across the recording member in a direction transverse to the process direction.

9. The printer apparatus of claim 1 and wherein the controller includes a microprocessor that is programmed to provide control of a heater and a mist producing device for control of temperature and humidity within the apparatus.

10. The printer apparatus of claim 9 and wherein the microprocessor, when the present detected temperature and humidity is outside of the area range of acceptable temperatures and humidities, determines a minimum change in a combination of temperature and humidity adjustments needed to change the temperature and humidity within the apparatus and in accordance with such determination controls which of the heater and the mist producing device or both is/are to be operated to provide the minimum change needed to change the present temperature and humidity to a temperature and humidity that is inside of the area range of acceptable temperatures and humidities.

11. A method of controlling conditions in a printer apparatus that includes a print engine that is operative upon an article to print marks upon the article, the method comprising:

detecting humidity within the printer apparatus;

detecting temperature within the printer apparatus; and

determining if the detected humidity within the apparatus falls within a range of acceptable humidities and the detected temperature within the apparatus falls within a range of acceptable temperatures wherein the range of acceptable humidities and acceptable temperatures defines an area of setpoints of acceptable humidities and temperatures.

12. The method of claim 11 and wherein a heater heats air moving within the apparatus in response to a determination that the temperature is outside of the area of setpoints.

13. The method of claim 12 and wherein a mist producing device adds humidity to the apparatus in response to a determination that the humidity is outside of the area of setpoints..

14. The method of claim 13 and wherein the print engine prints while a recording member is moved in a process direction and a fan is operated to provide airflow across the recording member in a direction transverse to the process direction.

15. The method of claim 14 and wherein a microprocessor is programmed to provide control of the heater and the mist producing device for control of temperature and humidity within the apparatus.

16. The method of claim 15 and wherein the microprocessor, when the present detected temperature and relative humidity are outside of the area range of acceptable temperatures and humidities, determines a minimum change in a combination of temperature and humidity adjustments needed to change the temperature and humidity within the apparatus and in accordance with such determination controls which of the heater and the mist producing device or both is/are to be operated to provide the minimum change needed to change the present temperature and humidity to a temperature and humidity that is inside of the area range of acceptable temperatures and humidities.

17. The method of claim 11 and wherein a mist producing device adds humidity to the air in the apparatus.

18. The method of claim 11 and wherein the print engine prints while a recording member is moved in a process direction and airflow is provided across the recording member in a direction transverse to the process direction.

19. The method of claim 11 and wherein a microprocessor is programmed to provide control of a heater and a mist producing device for control of temperature and humidity within the apparatus.

20. The method of claim 19 and wherein the microprocessor, when the present detected temperature and humidity are outside of the area range of acceptable temperatures and humidities, determines a minimum change in a combination of temperature and humidity adjustments needed to change the temperature and humidity within the apparatus and in accordance with such determination controls which of the heater and the mist producing device or both is/are to be operated to provide the minimum change needed to change the present temperature and humidity to a temperature and humidity that is inside of the area range of acceptable temperatures and relative humidities.

21. The method of claim 11 and wherein when a present detected temperature and humidity is outside of the area range of acceptable temperatures and relative humidities, a determination is made of a minimum change in a combination of temperature and humidity adjustments needed to change the temperature and humidity within the apparatus and in accordance with such determination the heater and the mist producing device or both is/are operated to provide the minimum change needed to change the present temperature and humidity to a temperature and humidity that is inside of the area range of acceptable temperatures and humidities.

22. The method of claim 14 and wherein the printer apparatus has temperature and humidity controlled without use of a refrigeration unit.